

Environmental Company
AIR TOX
Environmental Solutions For Today's Industries

January 6, 1999

Mr. Matt Hemming
Bureau of Air Management
Department of Environmental Protection
79 Elm Street
Hartford, Connecticut

RE: Superior Plating Scrubber Modifications Implementation Plan and Schedule

Dear Mr. Hemming:

The purpose of this letter is to update you regarding the mesh pad modification schedule for the Superior Plating facility, located in Southport, Connecticut. The mesh pads and retainers should arrive at Superior during the week of January 18, 1999. This will require Superior to install the pads and retainers over the weekend. It is anticipated that testing will occur during the week January 25, 1999, provided there isn't any problems with the installation of the new pads and retainers.

Air Tox will keep the CT DEP informed of any changes that might occur with MAPCO's schedule. If you have any questions or require further information, please do not hesitate to contact me at (860) 487-5606.

Regards,
Air Tox Environmental Company, Inc.



Eric C. Dithrich
Senior Project Engineer

cc: Robert LaFrance, CT DEP
Steve Calder, US EPA Region I
Alan Hick, US EPA Region I
Jon Youngson, MAPCO
Jim Westwood, Superior Plating



Environmental Company
AIR TOX
Environmental Solutions For Today's Industries

September 30, 1998

Mr. Steven J. Calder
United States Environmental Protection Agency
JFK Federal Building
Boston, Massachusetts 02203-0001

and

Mr. Robert LaFrance
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127

Re: Superior Plating of Southport, Connecticut - Fourth Compliance Status Update

Dear Mr. Calder and Mr. LaFrance:

As of 4:00 p.m. on Wednesday - September 30, all 21 of Superior Plating's hard chromium electroplating tanks are being ventilated through the three newly installed mist eliminators. This letter documents that Superior has completed the scrubber installation project on schedule as specified in the previously submitted compliance plan. Performance testing is scheduled and will be completed on October 13 - 15, 1998.

If you have any questions or require further information, please feel free to contact me at (860) 487-5606.

Sincerely,
Air Tox Environmental Company, Inc.



Dan Aune
Project Manager

Environmental Company
AIR TOX
Environmental Solutions For Today's Industries

September 22, 1998

Mr. Steven J. Calder
United States Environmental Protection Agency
Region 1
JFK Federal Building
Boston, Massachusetts 02203-0001

and

Mr. Robert LaFrance
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127

Re: Superior Plating of Southport, Connecticut - Compliance Status Update

Dear Mr. Calder and Mr. LaFrance:

As you requested, Superior is keeping you informed of the progress towards completing the installation of three new mist eliminators at their Southport facility. At 7:00 a.m. on Monday - September 21, Superior Plating started operating one of the three mist eliminators. This mist eliminator is identified on the project drawings as SC-3, and is currently controlling emissions from tank numbers 18, 19, 23, and 24. These four tanks are Superior's largest and account for 34.9% of the average operating rectifier amperage. Tank 21 will also be connected to SC-3 shortly.

If you have any questions or require further information, please feel free to contact me at (860) 487-5606.

Sincerely,
Air Tox Environmental Company, Inc.



Dan Aune
Project Manager

Environmental Company
AIR TOX
Environmental Solutions For Today's Industries

September 23, 1998

Mr. Steven J. Calder
United States Environmental Protection Agency
Region 1
JFK Federal Building
Boston, Massachusetts 02203-0001

and

Mr. Robert LaFrance
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127

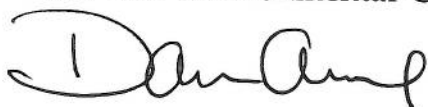
Re: Superior Plating of Southport, Connecticut - Second Compliance Status Update

Dear Mr. Calder and Mr. LaFrance:

At 11:00 a.m. on Wednesday - September 23, Superior Plating started operating the second of the three mist eliminators. This mist eliminator is identified on the project drawings as SC-2, and is currently controlling emissions from tank numbers 31, 32, 33, and 34. These four tanks account for 18.6% of the average operating rectifier amperage. Tanks 37, 64, and 65 will also be connected to SC-2 shortly. Two mist eliminators, SC-3 and SC-2, are operating and controlling emissions from eight tanks that total 53.5% of Superior's average operating rectifier amperage.

If you have any questions or require further information, please feel free to contact me at (860) 487-5606.

Sincerely,
Air Tox Environmental Company, Inc.



Dan Aune
Project Manager

August 17, 1998

Alan Hicks
U.S. EPA Region 1
N.E. Regional Laboratory
60 Westview Street
Lexington, MA 02173

Dear Mr. Hicks:

I have addressed each of the discrepancies you have identified in the protocol submitted for testing to be completed at Superior Plating Company of Southport Connecticut. I will resubmit the protocol when I receive your acceptance of the following clarifications/corrections.

1. A full set of architectural drawings depicting the details of the control system installation was submitted to Roy Crystal of the EPA. Steven Calder of EPA requested that no further copies of the drawings be submitted and that one drawing was sufficient. I have included a drawing detailing the installation of the pressure-drop magnehelics with this letter. The control systems have not been installed, operated, or balanced at this point in time, therefore an estimate of pressure-drop will be theoretical at best. The pressure drop estimate is 3.5 to 4.0 inches, but I caution you that the actual measurements may differ significantly from the estimates.
2. The October 13-14, 1998 testing dates reference was a typographical error. The USEPA "Notification of Performance Test" form in the Appendix of the Protocol contains the correct dates (October 13-15, 1998). Please note that the State of Connecticut "Intent to Test form" in the Appendix also states the correct dates. Please also note that the verbatim reference in the protocol is "One unit will be tested each day during the three day testing period" The correct dates are October 13-15, 1998.
3. A full set of architectural drawings depicting the details of the control system installation was submitted to Roy Crystal of the EPA. Steven Calder of EPA requested that no further copies of the drawings be submitted and that one drawing was sufficient. Please note that tank numbers 62 and 63 are inactive and will not be connected to the to the control system (SC-1). These tanks were mistakenly included in Table 3.1 submitted to Air Tox from Superior.

4. The fans are constant speed and will operate continuously during testing.
5. I have included example pitot tube and thermocouple calibrations with this letter. Please note that page 13 of the Protocol states: "Prior to the testing program, Air Tox provides calibrations of pitot tubes, dry gas meters, orifice meters, sampling nozzles, and thermocouples which are used during the test." Air Tox has multiple sets of equipment, and therefore we bring a field calibration binder to each test that contains current calibrations of the equipment being used. This binder is made available to agency officials that may be witnessing a test.
6. If you review the subtitle for Subpart N- National Standard for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, you will note that it states: "Source: 60 FR 4963, Jan 25, 1995, unless otherwise noted". This subtitle remains the same regardless of the revision. The intent of the reference in the protocol is to merely identify the regulation. Air Tox acknowledges and is aware of the revisions.

Please call me to make arrangements for the pretest meeting @ 860-487-5606.

Sincerely,
Air Tox Environmental Company, Inc.

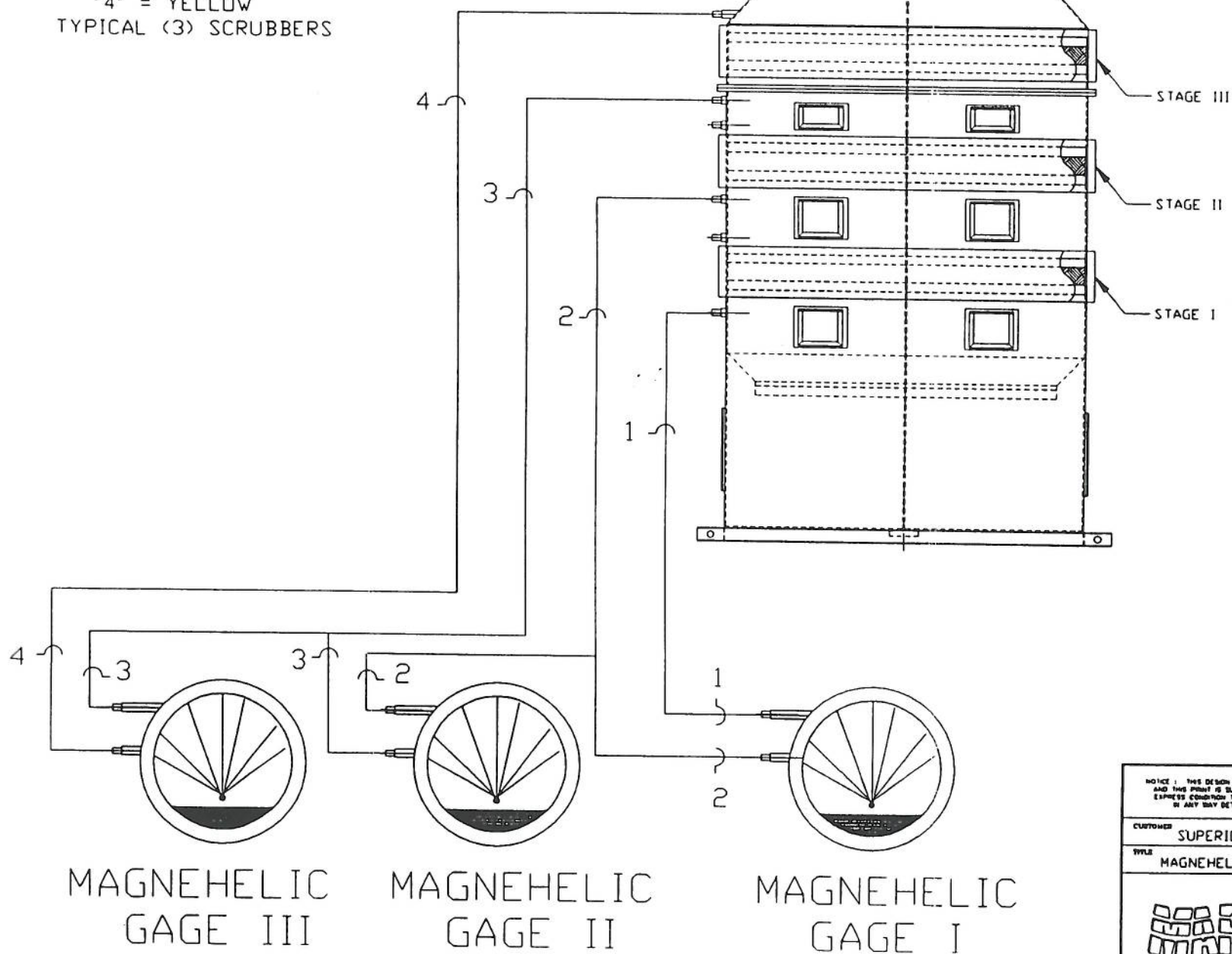
A handwritten signature in dark ink, appearing to read "Dan Aune". The signature is fluid and cursive, with a large initial "D" and a stylized "Aune".

Dan Aune
Project Manager

cc: Steven Calder, USEPA
Rich Durazzo, Superior Plating.

NOTES:

- 1 COLOR CODE
"1" = BLACK
"2" = RED
"3" = BLUE
"4" = YELLOW
- 2 TYPICAL (3) SCRUBBERS



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CUSTOMER SUPERIOR PLATING

TITLE MAGNEHELIC TUBING DETAIL



MIDWEST AIR PRODUCTS CO., INC.
P.O. BOX 6319 TRAVELER CITY, MI 48060
PHONE (810) 941-6060

DESIGNED BY JDM
DATE 4-14-98
CHECKED BY WJM
SCALE N/A
JOB NO. 12778
Dwg. No. 12778S04
SHEET NO. 1 OF 1

S-TYPE PITOT GEOMETRIC CALIBRATION
PART 2 - PITOT ALIGNMENT

Probe Identification Anderson, 6 ft. Pitot Identification Anderson Pitot, 6 ft.
 Technician Erik Mallory
 Date: 3/30/98

<p>A.</p> <p>Transverse Tube Axis</p>	<p>a <u>0.615</u></p> <p>b <u>0.188</u></p> <p>c <u>0.660</u></p> <p>d <u>0.187</u></p> <p>e <u>0.656</u></p> <p>θ <u>95.5</u></p> <p>θ' <u>94.3</u></p>	$\frac{a^2 + b^2 - c^2}{2ab} = \cos(\theta)$ $\frac{a^2 + d^2 - e^2}{2ad} = \cos(\theta')$ <p>(80° < θ < 100°)</p> <p>(80° < θ' < 100°)</p>
<p>B.</p> <p>Longitudinal Tube Axis</p>	<p>a <u>0.605</u></p> <p>b <u>0.354</u></p> <p>c <u>0.720</u></p> <p>d <u>0.343</u></p> <p>e <u>0.718</u></p> <p>θ <u>93.6</u></p> <p>θ' <u>94.4</u></p>	$\frac{a^2 + b^2 - c^2}{2ab} = \cos(\theta)$ $\frac{a^2 + d^2 - e^2}{2ad} = \cos(\theta')$ <p>(85° < θ < 95°)</p> <p>(85° < θ' < 95°)</p>
<p>C.</p> <p>(f < 1/8") 1/8" = 0.125"</p>	<p>f <u>0.041</u></p>	<p>D.</p> <p>(g < 1/32") 1/32" = 0.03125"</p> <p>g <u>0.006</u></p>

NOTE: Values in parentheses are EPA Method 2 specifications.

PROBE THERMOCOUPLE CALIBRATION

Expected Stack Temperature (Ts) NA °R
 Mercury Thermometer (Tref) NA °R
 Thermocouple Readout NA °R
 Probe Identification NA
 Technician NA

Tolerances

(Ts ± 10%)
 (Tref ± 1.5%)

Date 3/30/98



Date: 9/29/97

Thermocouple #1 (Small Probe)

Ambient Temperature: 72°F

Barometric Pressure: 29.33

Technician: Erik Mallory

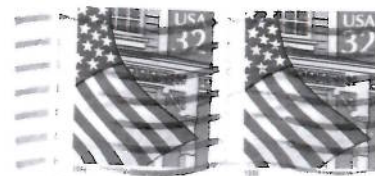
Reference:
Mercury-in-glass ASTM

Reference Point Number	Temperature Source	Reference Thermometer Temperature	Thermocouple Potentiometer Temperature	Temperature Difference Percent
0	Ice Bath	39	39	0.00%
		39	39	0.00%
		39	39	0.00%
100°C	Boiling Water	208	209	-0.16%
		208	209	-0.16%
		208	209	-0.16%
230°C	Boiling Oil	456	448	0.90%
		461	452	1.01%
		427	422	0.58%

The absolute values of the test thermometers and the thermocouple must agree within $\pm 1.5\%$



165 River Road
Wilmington, CT 06279



Steven Calder
U.S. EPA Region 1
Air Pesticides and Toxics
JFK Federal Building
Boston, MA 02203

02203/9999



MOGEAN-ROBCO, INC.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: CEE-BEE CLEANER A-7X7

Plant Address: 9520 E. CeeBee Dr., Downey CA 90241

Prepared by: W. L. Becketl

Issue Date: 12/81

Emergency

Phone No.: 213/803-4311

Chemtrec

Phone No.: 800/424-9300

Revised Date: 3rd, 9/87

INGREDIENTS AND HAZARDOUS COMPONENTS

	%	TLV	C.A.S.No.	Suspect Carcin- ogen
-CONTAINS NO HAZARDOUS MATERIALS IN ANY CONCENTRATION LISTED AS HAZARDOUS BY FEDERAL OR STATE REGULATIONS-	-	-	-	NO

PHYSICAL DATA

Boiling Point:	100 C	% Volatiles by Volume:	90
Freezing Point:	-1 C	Evaporation Rate:	<1
Specific gravity:	1.05	Solubility in water:	miscible
pH:	12.0	Odor:	mild
Vapor Pressure:	~ 17 mm Hg	Appearance & Form:	clear liquid
Vapor Density:	~ 0.63		

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	none	Flammable Limits in Air:	NA
Test Method:	NA	Extinguishing Media:	NA
Special Fire Fighting Procedures:	NA		
Unusual Fire and Explosion Hazards:	None		
DOT Classification:	Non-hazardous		

HEALTH HAZARD DATA

Effects of Overexposure and Primary Entries to Body: Through contact. May irritate eyes or skin. May defat skin.

Emergency and First Aid Procedures: Flush eyes and skin with water for at least 15 minutes. If any irritation persists, seek medical attention.

REACTIVITY DATA

Stable
Incompatibility - Materials to Avoid: NA
Hazardous Decomposition Products: None known
Hazardous Polymerization: Will not occur

SPILL OR LEAK PROCEDURES

Spills: Flush area with water.
Waste Disposal Methods: Adjust to proper pH and flush to sewer
Follow all Local, State and Federal regulations.

SPECIAL PROTECTION INFORMATION

Respirator: Not normally required.
Ventilation: Normal
Gloves: Rubber
Eye and Face: Chemical goggles
Other: Sufficient to prevent skin contact

Handling and Storage: Store at 32-100 F. Keep containers tightly closed.

10/28/96

14:05

MC GEAN*ROHCO → 203 254 3618

NO.076

001

3108036701

*****FAX COVER SHEET*****

**McGEAN-ROHCO, INC.
ROHCO DIVISION
9520 E. Cee-Bee Drive, Downey CA 90241
310/803-4311
FAX 310/803-6701**

TECHNICAL PRODUCT DATA SHEETS

PLEASE DELIVER IMMEDIATELY TO:

**TO: RICH DURASSO
SUPERIOR PLATING**

Date: OCTOBER 28, 1996

**FAX: 203-254-3618
PHONE: 203-255-1501**

Pages: 5

CEE-BEE CLEANER A-717

ALSO INCLUDED IN THIS PACKAGE ARE THE TANK ANALYSIS PROCEDURES

Thank you for your interest in our products! If you have any further questions, or if we can assist you further in any way, please contact us.

**GARY MEST, ROHCO TECHNICAL SERVICE MANAGER
Phone: (216) 441-4900
Fax: (216) 441-1377**

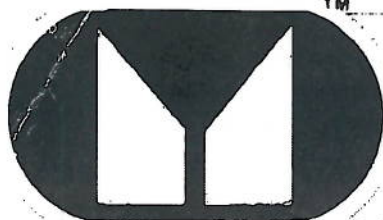
DUANE ROGERS, WESTERN REGIONAL MANAGER

SOURCE: JERRI DICKERSON ON CEO E-MAIL

HAVE A FINE DAY

1 part Cee-bee
3 part H₂O

100



McGean-Rohco
Cee-Bee Division

Data Sheet

CEE-BEE® CLEANER A-7X7

AN EFFECTIVE, LIQUID EMULSION CLEANER CONCENTRATE USUALLY USED AS A HOT TANK CLEANER. CAN ALSO BE USED FOR DEGREASING ENGINE EXTERIORS PRIOR TO TEAR-DOWN.

ADVANTAGES

1. Excellent for removing grease and oil.
2. Free rinsing.
3. Safe on steel, aluminum, titanium, magnesium and copper alloys.
4. Safe on most paints and plastics.
5. Non-flammable.
6. Contains no phenolics, cyanides or other heavy metal salts.
7. Surfactants biodegradable.

USE PROCEDURES (see precautions before using)

Hot Tank Cleaning

- o Fill the operating tank to approx. one-half capacity with water. Add the desired amount of Cee-Bee A-7X7 and bring to full tank volume with water. Stainless steel (300 series) is recommended for containing Cee-Bee A-7X7.
- o Operating concentration and temperature may vary with soil difficulty and range between a 10% to 50% (by volume) solution at 120°F to 160°F (49-71°C). For most applications a 20% to 25% (by volume) solution at 140°F (60°C) for 10 to 30 minutes provides satisfactory results. Although heat improves cleaning performance, Cee-Bee A-7X7 can be used at ambient temperature. For heavy duty cleaning, use Cee-Bee A-7X7 Additive. Add 2.5 to 10.0 gallons of the additive for each 100 gallons of tank solution. For most applications, 6 gallons per 100 gallons is usually satisfactory. Best results are obtained if some agitation is used. Mechanical agitation is recommended. Air agitation may develop too much foam.
- o After the cleaning operation is complete, raise parts out of the bath and rinse lightly over the process tank with a fine spray of water. This will help control product drag-out and dry down.
- o Remove parts away from the tank area and rinse thoroughly with a water spray or dip in an air agitated, overflowing clear water rinse tank.

Spray-on Cleaning and Degreasing Engine Exteriors

- o Mask all openings to the engine interior (the inlet, exhaust, fuel and oil lines left open, bleeders, breather tubes and open electrical connectors).
- o Spray, steam or foam on Cee-Bee A-7X7. Allow to dwell 10 to 20 minutes.
- o Flush with warm or hot water.

MCGEAN-ROHCO, INC., CEE-BEE DIVISION, 9520 EAST CEE BEE DRIVE, DOWNEY, CALIFORNIA 90241 (310) 803-4311

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Cee-Bee Cleaner A-7X7**SOLUTION CONTROL**

- o. For optimum cleaning, maintain the operating temperature at 120[°]F to 160[°]F. A drop in the temperature of the bath will adversely affect the cleaning performance.
- o. The concentration of a fresh Cee-Bee A-7X7 solution can be determined at the shop level by use of a hand refractometer (0-30 scale).

8
Refractometer Reading X 4.45 = $\frac{1}{2}$ by volume of Cee-Bee A-7X7

2 Note: The refractometer method of determining concentration becomes increasingly more inaccurate as the bath becomes contaminated with soil.

- o. The pH of the bath should be maintained at a minimum of 10.5 to insure good performance and to maintain safety to all metals. A pH meter is preferred, but a reliable pH paper can also be used.

If the pH falls below 10.5, adjust with Cee-Bee A-7X7 pH Adjuster. To increase the pH 0.1 unit add, with agitation, approximately 1 ounce Cee-Bee A-7X7 pH Adjuster for each 100 gallons of tank solution. 1/2 lbs.

- o. Add Cee-Bee Anti Foam Additive if foam formation is excessive. Do not add more than 0.5 ounces per 100 gallons of solution.
- 2 o. When performance appears to be unsatisfactory, either add Cee-Bee A-7X7 in 10% (by volume) increments, or Cee-Bee A-7X7 Additive in 3% (by volume) increments. If performance fails to show improvement, dump and recharge the tank with fresh Cee-Bee A-7X7.

PROPERTIES

A clear to slightly hazy liquid. No flash point. Mild solvent odor.

PRECAUTIONS

Can cause irritation. Avoid eye contact and prolonged skin contact. Wear face shield or goggles and rubber gloves.

In case of accidental contact, flood with water. If eye irritation persists, seek medical attention. Do not take internally.

rev.4/96

MCGEAN-ROHCO, INC.**CEE-BEE A-7X7 TANK CONTROL PROCEDURES****BY REFRACTOMETER READING****Equipment**

Hand Refractometer (0-30 scale), A. O. Instrument Co. 10440

Procedure

1. Allow a sample of the Cee-Bee A-7X7 bath to cool to room temperature (25 +/- 2 Degrees C).
2. Thoroughly mix the sample. Immediately apply a few drops to inclined rectangular window of the refractometer using the plastic rod provided to make the transfer.
3. Immediately close the plastic cover over the window.
4. Hold the instrument up to a strong light and read the refraction value on the scale of 0 to 30 units (water will read -0-).

Calculations

Refractometer Reading X 4.45 = % by volume of Cee-Bee A-7X7.

BY pH CONTROL**Equipment**

pH meter or reliable pH paper

Procedure

1. Maintain pH within a range of 10.5 to 11.5 to insure good performance.
2. If the pH falls below 10.5, add Cee-Bee A-7X7 pH Adjuster.

To increase the pH 0.1 of a unit add, with agitation, approx. 1 oz. Cee-Bee A-7X7 pH Adjuster for each 100 gallons of tank solution.

MCGEAN-ROHCO, INC., CEE-BEE DIVISION

CEE-BEE A-7X7 ANALYSIS PROCEDURE

SCOPE

Determine concentration of Cee-Bee A-7X7 baths by titration at the shop level.

REAGENTS & EQUIPMENT

pH Meter	0.1N acid, standard
250 ml. Erlenmeyer flask	Deionized or distilled water
50 ml. Burette	
10 ml. Volumetric pipette	

PROCEDURE

1. Pipette 10.0 ml. tank solution into a 250 ml. Erlenmeyer flask.
2. Add approximately 50.0 ml. DI water.
3. Titrate with 0.1N acid to pH of 9.0 and record ml. acid as A.
4. Continue titration to a pH of 4.0 and record total ml. acid as T.

CALCULATIONS

$$(T - A) \times 5.56 = \% \text{ (vol.) Cee-Bee A-7X7.}$$

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS

PRINT DATE: 12-06-94
EFFECTIVE DATE: - - -
MANUFACTURER'S CODE IDENTIFICATION: 32R34
33070788-07
PAGE: 1

ESSENTIALLY SIMILAR TO FORM OSHA -174

* SECTION I *

MANUFACTURER'S NAME: BATAVIA FACILITY
MORTON INTERNATIONAL
1500 LATHAM ST.
BATAVIA, IL 60510

Stop Off Paint

CUSTOMER: SUPERIOR PLATING
SOUTHPORT CT 06490

CHEMTREC EMERGENCY TELEPHONE NUMBER: 1-800-424-9300
ADDITIONAL INFORMATION TELEPHONE NUMBER: (708) 879-6800
PREPARED BY: PRODUCT SAFETY GROUP

TRADE NAME: 323 RED STOP OFF
PRODUCT FAMILY: VINYL COATING
APPEARANCE AND ODOR: OPAQUE LIQUID WITH AROMATIC SOLVENT ODOR

* SECTION II HAZARDOUS INGREDIENTS *

01 DIOCTYL PHTHALATE CAS# 117-81-7
% BY WT: 6.030

EXPOSURE LIMIT:
ACGIH TLV/TWA: 5.0 MG/M3
OSHA PEL/TWA: 5.0 MG/M3
OTHER TEST: SEE SECTION V

CARCINOGEN LIST: OSHA: N IARC: Y NTP: Y ACGIHH: N

02 METHYL ETHYL KETONE CAS# 78-93-3
BY WT: 40.230

EXPOSURE LIMIT:
ACGIH TLV/TWA: 200 PPM
ACGIH TLV/STEL: 300 PPM
OSHA PEL/TWA: 200 PPM

CARCINOGEN LIST: OSHA: N IARC: N NTP: N ACGIHH: N

03 ACETONE CAS# 67-64-1
% BY WT: 24.260

EXPOSURE LIMIT:
ACGIH TLV/TWA: 750 PPM
ACGIH TLV/STEL: 1000 PPM
OSHA PEL/TWA: 750 PPM

CARCINOGEN LIST: OSHA: N IARC: N NTP: N ACGIHH: N

04 VINYL CHLORIDE/ACETATE CAS# 9003-22-9
% BY WT: 15

CARCINOGEN LIST: OSHA: N IARC: N NTP: N ACGIHH: N

05 IRON OXIDE CAS# 1309-37-1
% BY WT: 10

EXPOSURE LIMIT:
ACGIH TLV/TWA: 5.0 MG/M3 DUST & FUME AS IRON
OSHA PEL/TWA: 5.0 MG/M3 DUST & FUME AS IRON

CARCINOGEN LIST: OSHA: N IARC: N NTP: N ACGIHH: N

ESSENTIALLY SIMILAR TO FORM OSHA-174

Print Date 12-06-94

Page: 2

Effective Date - -

MORTON INTERNATIONAL-BATAVIA FACILITY

MANUFACTURER'S CODE IDENTIFICATION: 32R34

This product contains one or more reported carcinogens or suspected carcinogens which are noted NTP, IARC, or OSHA-Z in the other limits recommended column.

* SECTION III - PHYSICAL DATA *

Boiling Range: Not Established
Vapor Pressure: Not Established
Vapor Density: Heavier than air.
Evaporation Rate: Slower than ether.
Weight per Gallon: 7.99 lbs/gal
% Volatile by Volume: 77.02
% Volatile by Weight: 64.20

* SECTION IV FIRE AND EXPLOSION HAZARD DATA *

Flammability Classification: Class 1B DOT: Flammable Liquid
Flashpoint TCC: 1.0 F
Explosion Level: Not Established
LEL: Not Established

EXTINGUISHING MEDIA:

SMALL FIRES: USE FOAM, CARBON DIOXIDE, DRY CHEMICAL, OR WATER SPRAY
LARGE FIRES: USE FOAM, WATER SPRAY, OR FOG.
ALCOHOL FOAM FOR POLAR SOLVENTS.

UNUSUAL FIRE AND EXPLOSION HAZARD:

VAPORS MAY BE HEAVIER THAN AIR AND MAY TRAVEL CONSIDERABLE DISTANCES FROM THE MATERIAL HANDLING POINT. VAPORS CAN BE IGNITED BY A SPARK, FLAME, CIGARETTE, ELECTRICAL MOTOR, STATIC DISCHARGE, ENGINE, PILOT LIGHT, HOT SURFACE, OR OTHER IGNITION SOURCE.
MAY LIBERATE IRRITATING OR TOXIC VAPORS DURING COMBUSTION OR DECOMPOSITION. Based on the presence of components (04) COMBUSTION OR THERMAL DECOMPOSITION YIELDS TOXIC HYDROGEN CHLORIDE GAS.

SPECIAL FIRE FIGHTING PROCEDURES:

FULL PROTECTIVE EQUIPMENT, INCLUDING SELF-CONTAINED BREATHING APPARATUS, IS RECOMMENDED. WATER FROM FOG NOZZLES MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILDUP.

* SECTION V HEALTH HAZARD DATA *

ROUTE OF ENTRY: INHALATION, INGESTION, SKIN AND EYES.

INGESTION:

Based on the presence of components (01,02,03,04,05)
GASTROINTESTINAL DISTRESS
IN THE UNLIKELY EVENT OF INGESTION, CALL A PHYSICIAN IMMEDIATELY AND HAVE NAMES OF INGREDIENTS AVAILABLE.

SKIN:

Based on the presence of components (01,04,05) IMMEDIATELY FLUSH AFFECTED AREA WITH WATER FOR AT LEAST 15 MINUTES. FOR LARGE EXPOSURES USE AN EMERGENCY SHOWER, REMOVE CONTAMINATED CLOTHING AND SHOES. CLEANSE SKIN WITH SOAP AND WATER, INCLUDING HAIR AND UNDER FINGER NAILS. GET IMMEDIATE MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING SEPARATELY BEFORE REUSE.

EYE:

Based on the presence of components (01,04,05) IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, CALL A PHYSICIAN. IF IRRITATION OCCURS, CONTACT A PHYSICIAN.

INHALATION:

Based on the presence of components (01,02,03,04,05)
IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR, IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH TO MOUTH.

ESSENTIALLY SIMILAR TO FORM OSHA-174

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MORTON INTERNATIONAL-BATAVIA FACILITY

MANUFACTURER'S CODE IDENTIFICATION: 32R34

IF BREATHING DIFFICULTY PERSISTS, OR OCCURS LATER, CONSULT A PHYSICIAN.

* ROUTE OF ENTRY, SYMPTOMS, ACUTE AND CHRONIC EFFECTS OF EXPOSURE *

INGESTION:

Based on the presence of components (01,02,03,04,05)
GASTROINTESTINAL DISTRESS

SKIN:

Based on the presence of components (01,02,03,04,05)
REPEATED OR PROLONGED LIQUID CONTACT MAY CAUSE SKIN IRRITATION WITH
DISCOMFORT AND DERMATITIS. MAY ALSO CAUSE ALLERGIC SKIN REACTIONS.
Due to the presence of some component(s) CAN BE ABSORBED THROUGH
THE SKIN IN HARMFUL AMOUNTS

EYE:

Based on the presence of components (02,03) MAY CAUSE EYE
IRRITATION, DISCOMFORT, TEARING, OR BLURRED VISION.

INHALATION:

Based on the presence of components (01,02,03,04,05) MAY CAUSE
NOSE AND THROAT IRRITATION. MAY CAUSE NERVOUS SYSTEM DEPRESSION
CHARACTERIZED BY THE FOLLOWING PROGRESSIVE STEPS: HEADACHE, DIZZINESS,
NAUSEA, STAGGERING GAIT, CONFUSION, UNCONSCIOUSNESS.

NOTE TO PHYSICIAN: TREATMENT SHOULD BE DIRECTED AT PREVENTING ABSORPTION,
ADMINISTERING TO THE SYMPTOMS AS THEY OCCUR, AND PROVIDING SUPPORTIVE
THERAPY.

CHRONIC EFFECTS OF EXPOSURE:

METHYL ETHYL KETONE - HIGH CONCENTRATIONS HAVE CAUSED EMBRYOTOXIC EFFECTS
IN LABORATORY ANIMALS. METHYL ETHYL KETONE HAS BEEN DEMONSTRATED TO
WORSEN THE PERIPHERAL NEUROPATHY CAUSED BY EITHER N-HEXANE OR METHYL
N-BUTYL KETONE. MEK BY ITSELF HAS NOT BEEN DEMONSTRATED TO CAUSE
PERIPHERAL NEUROPATHY.

IRON OXIDE DUST IS AN EYE AND MUCOUS MEMBRANE IRRITANT. CHRONIC
EXPOSURE MAY AFFECT THE LUNGS.

VINYL CHLORIDE-VINYL ACETATE COPOLYMER- CHRONIC EXPOSURE MAY AFFECT THE
LUNGS. POSITIVE ANIMAL CARCINOGEN(IARC)

MAY CAUSE BLOOD DISORDERS. MAY AFFECT THE CENTRAL NERVOUS SYSTEM. CAUSE
ADVERSE REPRODUCTIVE EFFECTS. MAY AFFECT THE KIDNEYS AND LIVER. 20,000 PPM
IMMEDIATELY DANGEROUS TO LIFE OR HEALTH.

* SECTION VI REACTIVITY DATA *

STABILITY: STABLE

INCOMPATIBILITY (MATERIALS TO AVOID):

Based on the presence of components (01,02,03,04,05)

STRONG OXIDIZING AGENTS.

Based on the presence of components (03) CHROMIUM TRIOXIDE
PLASTIC AND KETONES

HAZARDOUS PRODUCTS OF DECOMPOSITION:

MAY LIBERATE CARBON MONOXIDE, CARBON DIOXIDE, AND UNIDENTIFIED ORGANIC
COMPOUNDS IN BLACK SMOKE.

Based on the presence of components (04) HCL

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID:

AVOID EXPOSURE TO SPARKS, OPEN FLAME, HOT SURFACES, AND ALL SOURCES OF
HEAT AND IGNITION.

ESSENTIALLY SIMILAR TO FORM OSHA-174

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MORTON INTERNATIONAL-BATAVIA FACILITY

MANUFACTURER'S CODE IDENTIFICATION: 32R34

* SECTION VII SPILL OR LEAK PROCEDURES *

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
STOP DISCHARGE, IF IT CAN BE PREVENTED SAFELY, AND CONTAIN MATERIAL.
IF SUBSTANTIAL QUANTITY IS SPILLED, RECOVER WITH PUMP OR VACUUM TRUCK.
EXPLOSION PROOF EQUIPMENT SHOULD BE USED IF THIS PRODUCT IS FLAMMABLE OR
COMBUSTIBLE (SEE SECTION IV). OTHERWISE, USE A SYNTHETIC ABSORBENT, PLACE
CONTAMINATED MATERIAL IN A SUITABLE CONTAINER FOR DISPOSAL. APPROPRIATE
SAFETY MEASURES AND PROTECTIVE EQUIPMENT SHOULD BE USED (SEE SECTION VIII).
DO NOT FLUSH TO SEWER, STREAM, OR OTHER BODIES OF WATER. COMPLY WITH ALL
APPLICABLE GOVERNMENTAL REGULATIONS ON SPILL REPORTING.

WASTE DISPOSAL METHOD:

DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL
REGULATIONS. OF THE METHODS OF DISPOSAL CURRENTLY AVAILABLE, IT IS
RECOMMENDED THAT AN ALTERNATIVE BE SELECTED ACCORDING TO THE FOLLOWING
ORDER OF PREFERENCE BASED UPON ENVIRONMENTAL ACCEPTABILITY: (1) RECYCLE OR
REWORK IF AT ALL FEASIBLE, (2) INCINERATE AT AN AUTHORIZED FACILITY, (3)
TREAT AT AN ACCEPTABLE WASTE TREATMENT FACILITY.

* SECTION VIII SPECIAL PROTECTION INFORMATION *

RESPIRATORY PROTECTION:

WHEN ESTABLISHED AIRBORNE EXPOSURE LIMITS ARE SURPASSED (SEE AIRBORNE
EXPOSURE LIMITS IN THIS SECTION), WEAR NIOSH/MSHA APPROVED EQUIPMENT.
DETERMINE THE APPROPRIATE TYPE EQUIPMENT FOR THE SPECIFIC APPLICATION BY
CONSULTING THE RESPIRATOR MANUFACTURER. OBSERVE THE RESPIRATOR USE
LIMITATIONS SPECIFIED BY NIOSH/MSHA OR THE MANUFACTURER.

RESPIRATORY PROTECTION:

VENTILATION:

LOCAL EXHAUST TO MAINTAIN VAPOR CONCENTRATION BELOW THRESHOLD LIMIT
VALUE.

PROTECTIVE GLOVES:

REQUIRED FOR REPEATED OR PROLONGED CONTACT.

EYE PROTECTION:

PROTECTIVE GOGGLES OR MASK REQUIRED TO PROTECT AGAINST SPLASH.

OTHER PROTECTIVE EQUIPMENT:

EYE WASH RECOMMENDED.

HYGIENIC PRACTICES:

REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. DISCARD SHOES IF
SATURATED.

* SECTION IX SPECIAL PRECAUTIONS *

HANDLING AND STORING PRECAUTIONS:

STORE IN A COOL, DRY, WELL VENTILATED AREA.

DOL STORAGE CATEGORY: REFERENCE OSHA 1910.106.

REPAIR AND MAINTENANCE: DO NOT CUT, GRIND, WELD, OR DRILL NEAR THIS
CONTAINER.

OTHER PRECAUTIONS:

THIS CONTAINER CAN BE HAZARDOUS WHEN EMPTY, BECAUSE IT CAN RETAIN
PRODUCT RESIDUE. THEREFORE, DO NOT REUSE CONTAINER FOR FOOD, CLOTHING, OR
PRODUCTS FOR HUMAN OR ANIMAL CONSUMPTION OR WHERE SKIN CONTACT MAY OCCUR.
ALWAYS OBEY HAZARD WARNINGS AND HANDLE CONTAINERS AS IF THEY WERE FULL.

H M I S HEALTH: 1* FLAMMABILITY: 3 REACTIVITY: 1

THE NATIONAL PAINT AND COATINGS ASSOCIATION'S HAZARD MATERIALS
IDENTIFICATION SYSTEM IS INTENDED TO ESTIMATE THE INHERENT HAZARDS OF A
CHEMICAL UNDER NORMAL WORKPLACE SITUATIONS. THE DEGREE OF EACH OF THREE
HAZARDS (HEALTH/FLAMMABILITY/REACTIVITY) IS RATED BY A NUMERICAL
DESIGNATION RANGING FROM LOW TO HIGH OF 0 TO 4. "*" INDICATES THE PRODUCT
CONTAINS INGREDIENTS THAT ARE CHRONIC HEALTH HAZARDS. SEE SECTION V.

ESSENTIALLY SIMILAR TO FORM OSHA-174

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MANUFACTURER'S CODE IDENTIFICATION: 32R34

A BULLETIN SUCH AS THIS CANNOT BE EXPECTED TO COVER ALL POSSIBLE INDIVIDUAL SITUATIONS. THE USER HAS THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE. ALL ASPECTS OF AN INDIVIDUAL OPERATION SHOULD BE EXAMINED TO DETERMINE IF, OR WHERE, PRECAUTIONS - IN ADDITION TO THOSE DESCRIBED HEREIN - ARE REQUIRED. ANY HEALTH HAZARD AND SAFETY INFORMATION CONTAINED HEREIN SHOULD BE PASSED ON TO YOUR CUSTOMERS OR EMPLOYEES, AS THE CASE MAY BE.

* ADDITIONAL FEDERAL OR STATE REGULATORY INFORMATION *

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA) REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER OF RELEASE OF QUANTITIES OF HAZARDOUS SUBSTANCES EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITIES (RQ) IN 40 CFR 302.4. COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

78-93-3 METHYL ETHYL KETONE
67-64-1 ACETONE

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III REQUIRES EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES (TPQ) AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ) IN 40 CFR 355 (USED FOR SARA 302). COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

117-81-7 DIOCTYL PHTHALATE

THE FOLLOWING CHEMICALS ARE FOUND ON THE NEW JERSEY LIST OF CHEMICALS:

177-81-7 DIOCTYL PHTHALATE
109-37-1 IRON OXIDE
78-93-3 METHYL ETHYL KETONE
67-64-1 ACETONE

THE FOLLOWING CHEMICALS ARE FOUND ON THE PENNSYLVANIA LIST OF CHEMICALS:

177-81-7 DIOCTYL PHTHALATE
1309-37-1 IRON OXIDE
78-93-3 METHYL ETHYL KETONE
67-64-1 ACETONE

SECTION 313 TOXIC CHEMICALS

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III REQUIRES SUBMISSION OF ANNUAL REPORTS OF RELEASE OF TOXIC CHEMICALS THAT APPEAR IN 40 CFR 372 (FOR SARA 313). THIS INFORMATION MUST BE INCLUDED IN ALL MSDS(S) THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL. COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

CAS#:	117-81-7	Weight %:	6.030
CAS#:	78-93-3	Weight %:	40.230
CAS#:	67-64-1	Weight %:	24.260

DISCLAIMER OF LIABILITY

THE INFORMATION CONTAINED HEREIN IS, TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE. HOWEVER, SINCE THE CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE MAKE NO GUARANTEES OF RESULTS, AND ASSUME NO LIABILITY FOR DAMAGES INCURRED BY USE OF THIS MATERIAL. ALL CHEMICALS MAY PRESENT UNKNOWN HEALTH HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS WHICH EXIST. FINAL DETERMINATION OF SUITABILITY OF THE CHEMICAL IS THE SOLE RESPONSIBILITY OF THE USER. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS, FOR A PARTICULAR PURPOSE OR ANY OTHER ARE MADE WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.

 ** MATERIAL SAFETY DATA SHEET **

THE TOLBER DIVISION
 220 West 5th Street
 Hope, Arkansas 71801

Information Phone # : (501)-777-5750

Latest Revision Date...07/14/95
 Print Date.....07/24/95
 EMERGENCY PHONE NUMBER: 1-800-264-2535-2584

MICCRO SUPER 2000 LR

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<u>SECTION 1</u>	<u>PRODUCT IDENTIFICATION</u>
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PRODUCT NAME OR NUMBER..... XP-2000 LR
 TRADE NAME OR CHEMICAL NAME..... MICCRO SUPER 2000 LR
 SYNONYMS.....
 FORMULA.....
 CHEMICAL FAMILY.....
 MOLECULAR WEIGHT.....
 NFPA.....

HMIS RATING.....

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<u>SECTION 2</u>	<u>HAZARDOUS INGREDIENTS / HAZARD DATA</u>
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<u>CHEMICAL NAME(S)</u>	<u>CAS NUMBER</u>	<u>% WT</u>	<u>TLV-TWA</u>	<u>PEL</u>	<u>SEC.313</u>
VM&P NAPHTHA	64742-89-8	10 - 20	500ppm	500ppm	Yes
TOLUENE	108-88-3	50 - 60	100 PPM	100 PPM	Yes

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<u>SECTION 3</u>	<u>PHYSICAL DATA</u>
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BOILING/MELTING POINT @760 mm Hg 215F
 PH..... N.A.
 VAPOR PRESSURE mm Hg @20° C..... N.D.
 VAPOR DENSITY (Air = 1)..... 1
 PERCENT VOLATILE BY WEIGHT (%).. N.D.
 SPECIFIC GRAVITY OR BULK DENSITY 0.959
 SOLUBILITY IN WATER..... NOT SOLUBLE
 EVAPORATION RATE (BuAc = 1)..... 1.5
 APPEARANCE..... LIGHT RED LIQUID
 ODOR..... AROMATIC ODOR
 INTENSITY.....

=====

<u>SECTION 4</u>	<u>FIRE AND EXPLOSION HAZARD DATA</u>
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FLASH POINT °F (Test Method).... 38F, TCC
 AUTOIGNITION TEMPERATURE..... N.D.
 FLAMMABILITY LIMITS IN AIR (% V) LEL- 1.2%
 UEL- 7.0%
 EXTINGUISHING MEDIA..... CO2 OR DRY CHEMICAL
 SPECIAL FIRE FIGHTING PROCEDURES SELF-CONTAINED BREATHING APPARATUS AND PERSONAL PROTECTIVE EQUIPMENT.

UNUSUAL FIRE & EXPLOSION HAZARDS MATERIAL IS HIGHLY VOLATILE. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG GROUND TO IGNITION SOURCE.

SECTION 5 HEALTH HAZARD DATA * EFFECTS OF OVEREXPOSURE

SKIN CONTACT..... IRRITATION, DEFATTING

EYE CONTACT..... CAN CAUSE IRRITATION, BLURRED VISION

INHALATION..... DIZZINESS, NAUSEA, HEADACHE, FATIGUE

INGESTION..... IRRITATION, NAUSEA, VOMITING

CHRONIC EFFECTS OF OVEREXPOSURE. DIZZINESS, FATIGUE, NAUSEA, POSSIBLE VOMITING, POSSIBLE SKIN IRRITATION. PROLONGED EXPOSURE MAY AGGRAVATE PRE-EXISTING LUNG AND SKIN DISORDERS.

TOXICOLOGICAL TEST DATA.....

SECTION 6 EMERGENCY AND FIRST AID PROCEDURES

SKIN..... WASH WITH SOAP AND WATER

EYES..... FLUSH WITH LARGE AMOUNTS OF WATER
CONSULT A PHYSICIAN

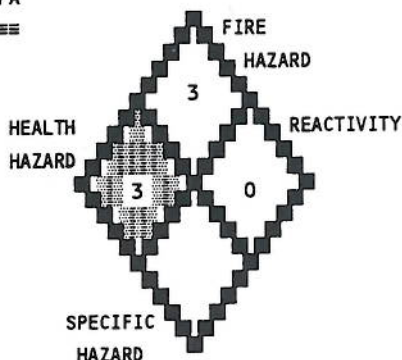
INGESTION..... DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION.

INHALATION..... REMOVE TO FRESH AIR.

SECTION 7 HMIS RATING SYSTEM

NFPA

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HMIS RATING

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HEALTH HAZARD.....:3
FIRE HAZARD.....:3
REACTIVITY.....:0
PERSONAL PROTECTION...: X (SECT. 9)

SECTION 8 REACTIVITY DATA

PRODUCT STABILITY..... STABLE

Conditions to Avoid..... HIGH HEAT, FLAME, SPARKS

CHEMICAL INCOMPATIBILITY..... STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS THERMAL DECOMPOSITION MAY LIBERATE CARBON MONOXIDE AND CARBON DIOXIDE

HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR

Conditions to Avoid..... NONE KNOWN

CORROSIVE TO METAL..... NO

OXIDIZER..... NO

SECTION 9SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION..... WEAR N.I.O.S.H. APPROVED RESPIRATOR IF
POINT-OF-USE GENERATES VAPORS ABOVE
RECOMMENDED LIMITS
VENTILATION..... LOCAL EXHAUST REQUIRED
PROTECTIVE CLOTHING..... LONG SLEEVED SHIRT, TROUSERS, SAFETY
SHOES. SOLVENT RESISTANT GLOVES
EYE PROTECTION..... CHEMICAL SPLASH GOGGLES
OTHER PRECAUTIONS..... WASH HANDS WITH SOAP AND WATER BEFORE
HANDLING FOOD. FLAMMABLE-STORE IN COOL, DRY
AREA AWAY FROM HEAT SOURCES. KEEP CONTAIN-
ERS TIGHTLY CLOSED WHEN NOT IN USE. EMPTY
CONTAINERS MAY CONTAIN RESIDUAL VAPORS

SECTION 10ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA.....
SPILL OR LEAK PROCEDURES..... ELIMINATE ALL SOURCES OF IGNITION. SOAK UP
WITH ABSORBENT MATERIAL; i.e., VERMICULITE
SAND. PLACE IN D.O.T. APPROVED CONTAINER
FOR DISPOSAL.
HAZARDOUS SUBSTANCE SUPERFUND...
WASTE DISPOSAL METHOD..... MATERIAL IS HAZARDOUS WASTE. DISPOSE OF IN
ACCORDANCE WITH FEDERAL, STATE, AND LOCAL
REGULATIONS.
HAZARDOUS WASTE 40CFR261.....
CONTAINER DISPOSAL..... DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE
AND FEDERAL REGULATIONS

SECTION 11SHIPPING DATA

D.O.T. PROPER SHIPPING NAME.....
HAZARDOUS SUBSTANCE 49CFR CERCLA
D.O.T. HAZARD CLASS.....
D.O.T. LABELS REQUIRED.....
D.O.T. PLACARDS REQUIRED.....
POISON CONSTITUENT.....
BILL OF LADING DESCRIPTION.....
CC NO.....
UN/NA CODE.....

SECTION 12SUPPLIER INFORMATION

While THE TOLBER DIVISION believes the statements set forth herein
are accurate as of the date hereof, THE TOLBER DIVISION makes no
warranty with respect thereto and expressly disclaims all liability for
reliance thereon. Such data are offered solely for your consideration,
investigation, and verification.

**** MATERIAL SAFETY DATA SHEET ****

Information Phone # : (501)-777-5750

THE TOLLER DIVISION
 220 WEST 5TH STREET
 HOPE, ARKANSAS 71801

Latest Revision Date...10/20/94

Print Date.....10/20/94

Reducer for XP-2000

EMERGENCY PHONE NUMBER: 1-800-264-2535-2584

SECTION 1

PRODUCT IDENTIFICATION

 PRODUCT NAME OR NUMBER..... XP2000 RED
 TRADE NAME OR CHEMICAL NAME..... Reducer for XP-2000
 SYNONYMS.....
 FORMULA.....
 CHEMICAL FAMILY.....
 MOLECULAR WEIGHT.....
 NFPA.....

HMIS RATING.....

SECTION 2

HAZARDOUS INGREDIENTS / HAZARD DATA

CHEMICAL NAME(S)	CAS NUMBER	% WT	TLV-TWA	PEL	SEC. 313
METHYL ISOBUTYL KETONE	108-10-1	1 - 10	50ppm	100ppm	Yes
TOLUENE	108-88-3	90 - 99	100ppm	100ppm	Yes

SECTION 3

PHYSICAL DATA

 BOILING/MELTING POINT @760 mm Hg 230F
 pH..... N.D.
 VAPOR PRESSURE mm Hg @20° C..... N.D.
 VAPOR DENSITY (Air = 1)..... 1.0
 PERCENT VOLATILE BY WEIGHT (%).. 100.00
 SPECIFIC GRAVITY OR BULK DENSITY 0.87
 SOLUBILITY IN WATER..... Slight
 EVAPORATION RATE (BuAc = 1)..... 1.9
 APPEARANCE..... CLEAR LIQUID.
 ODOR..... AROMATIC ODOR.
 INTENSITY..... N.D.

SECTION 4

FIRE AND EXPLOSION HAZARD DATA

 FLASH POINT °F (Test Method).... 45F TCC
 AUTOIGNITION TEMPERATURE..... N.D.
 FLAMMABILITY LIMITS IN AIR (% V) LEL - 1.2%
 UEL - 7.0%
 EXTINGUISHING MEDIA..... CO2, DRY CHEMICAL
 SPECIAL FIRE FIGHTING PROCEDURES WEAR SELF-CONTAINED BREATHING APPARATUS
 AND PERSONAL PROTECTIVE EQUIPMENT.

UNUSUAL FIRE & EXPLOSION HAZARDS VOLATILE MATERIAL. VAPORS ARE HEAVIER THAN
 AIR AND MAY TRAVEL TO IGNITION SOURCE AND
 FLASH BACK.

Reducer for XP-2000

SECTION 5 HEALTH HAZARD DATA * EFFECTS OF OVEREXPOSURE

SKIN CONTACT..... IRRITATION, DEFATTING, DERMATITUS POSSIBLE

EYE CONTACT..... VAPORS MAY IRRITATE THE EYES. LIQUID AND
MISTS MAY SEVERELY IRRITATE OR DAMAGE THE
EYES.

INHALATION..... DIZZINESS, HEADACHES, NAUSEA.

INGESTION..... NAUSEA, VOMITING, DIARRHEA.

CHRONIC EFFECTS OF OVEREXPOSURE. HEADACHES, DIZZINESS, NAUSEA, SHORTNESS OF
BREATH, AND BLURRED VISION POSSIBLE UPON
PROLONGED EXPOSURE.

TOXICOLOGICAL TEST DATA..... N.A.

SECTION 6 EMERGENCY AND FIRST AID PROCEDURES

SKIN..... IMMEDIATELY WASH SKIN WITH LOTS OF SOAP
AND WATER. REMOVE CONTAMINATED CLOTHING
AND SHOES, WASH BEFORE REUSE. GET MEDICAL
ATTENTION IF IRRITATION PERSISTS AFTER
WASHING.

EYES..... FLUSH WITH WATER. GET MEDICAL AID.

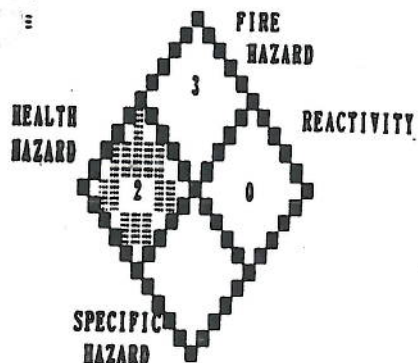
INGESTION..... DRINK WATER, DO NOT INDUCE VOMITING. GET
MEDICAL AID.

INHALATION..... REMOVE TO FRESH AIR.

SECTION 7

HMIS RATING SYSTEM

NFPA



HMIS RATING

HEALTH HAZARD.....:2
 FIRE HAZARD.....:3
 REACTIVITY.....:0
 PERSONAL PROTECTION..: X

SECTION 8

REACTIVITY DATA

PRODUCT STABILITY..... STABLE
 Conditions to Avoid.....
 CHEMICAL INCOMPATIBILITY..... STRONG OXIDIZING AGENTS.
 HAZARDOUS DECOMPOSITION PRODUCTS CARBON MONOXIDE, CARBON DIOXIDE, OTHER
 TOXIC HYDROCARBONS POSSIBLE IN FIRE.
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.
 Conditions to Avoid..... NONE KNOWN.
 CORROSIVE TO METAL..... NO.
 OXIDIZER..... NO.

SECTION 9

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION..... USE NIOSH APPROVED RESPIRATORY PROTECTIVE
 EQUIPMENT WHEN CONCENTRATION OF VAPORS OR
 MISTS EXCEED APPLICABLE OSHA PEL/ACGIH-TLV
 EXPOSURE LIMITS.
 VENTILATION..... SUFFICIENT TO KEEP EXPOSURE BELOW LIMITS.
 PROTECTIVE CLOTHING..... SOLVENT RESISTANT GLOVES AND APRON IF SKIN
 CONTACT WILL OCCUR.
 EYE PROTECTION..... SPLASH GOGGLES.
 OTHER PRECAUTIONS..... WASH THOROUGHLY AFTER HANDLING. KEEP OUT
 OF FOOD AREAS.

SECTION 10

ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA..... N.A.
 SPILL OR LEAK PROCEDURES..... ELIMINATE ALL IGNITION SOURCES. SOAK UP
 WITH ABSORBENT MATERIAL.
 HAZARDOUS SUBSTANCE SUPERFUND...
 WASTE DISPOSAL METHOD..... DISPOSE OF IN ACCORDANCE WITH EPA, STATE,
 AND LOCAL REGULATIONS.

SECTION 10

ENVIRONMENTAL DATA

CONT'D

HAZARDOUS WASTE 40CFR261.....

CONTAINER DISPOSAL.....

DISPOSE OF IN ACCORDANCE WITH EPA, STATE,
AND LOCAL REGULATIONS.

SECTION 11

SHIPPING DATA

D.O.T. PROPER SHIPPING NAME.....

HAZARDOUS SUBSTANCE 49CFR CERCLA

D.O.T. HAZARD CLASS.....

D.O.T. LABELS REQUIRED.....

D.O.T. PLACARDS REQUIRED.....

POISON CONSTITUENT.....

BILL OF LADING DESCRIPTION.....

CC NO.....

UN/NA CODE.....

SECTION 12

SUPPLIER INFORMATION

While THE TOLBER DIVISION believes the statements set forth herein
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*** MATERIAL SAFETY DATA SHEET ***

Information Phone # : (501)-777-5750

THE TOLBER DIVISION
220 West 5th Street
Hope, Arkansas 71801

Latest Revision Date...07/14/95
Print Date.....07/24/95
EMERGENCY PHONE NUMBER: 1-800-264-2535-2584

MICCRO SUPER XP-2000

SECTION 1

PRODUCT IDENTIFICATION

PRODUCT NAME OR NUMBER..... XP-2000
TRADE NAME OR CHEMICAL NAME..... MICCRO SUPER XP-2000
SYNONYMS.....
FORMULA.....
CHEMICAL FAMILY.....
MOLECULAR WEIGHT.....
NFPA.....

HMIS RATING.....

SECTION 2

HAZARDOUS INGREDIENTS / HAZARD DATA

CHEMICAL NAME(S)	CAS NUMBER	% WT	TLV-TWA	PEL	SEC.313
VM&P NAPHTHA	64742-89-8	10 - 20	500ppm	500ppm	Yes
LEAD CHROMATE	7758-97-6	1 - 3	.05mg/m3	NA	Yes
TALC	14807-96-6	10 - 20	2mg/m3	NA	Yes
TOLUENE	108-88-3	50 - 60	100 PPM	100 PPM	Yes

SECTION 3

PHYSICAL DATA

BOILING/MELTING POINT @760 mm Hg 215F
pH..... N.A.
VAPOR PRESSURE mm Hg @20° C..... N.D.
VAPOR DENSITY (Air = 1)..... 1
PERCENT VOLATILE BY WEIGHT (%).. N.D.
SPECIFIC GRAVITY OR BULK DENSITY 0.959
SOLUBILITY IN WATER..... NOT SOLUBLE
EVAPORATION RATE (BuAc = 1)..... 1.5
APPEARANCE..... ORANGE LIQUID
ODOR..... AROMATIC ODOR
INTENSITY.....

SECTION 4

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT °F (Test Method).... 38F, TCC
AUTOIGNITION TEMPERATURE..... N.D.
FLAMMABILITY LIMITS IN AIR (% V) LEL- 1.2%
UEL- 7.0%
EXTINGUISHING MEDIA..... CO2 OR DRY CHEMICAL
SPECIAL FIRE FIGHTING PROCEDURES SELF-CONTAINED BREATHING APPARATUS AND PERSONAL PROTECTIVE EQUIPMENT.

SECTION 4FIRE AND EXPLOSION HAZARD DATA

CONT'D

USUAL FIRE & EXPLOSION HAZARDS MATERIAL IS HIGHLY VOLATILE. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG GROUND TO IGNITION SOURCE.

SECTION 5 HEALTH HAZARD DATA * EFFECTS OF OVEREXPOSURE

SKIN CONTACT..... IRRITATION, DEFATTING

EYE CONTACT..... CAN CAUSE IRRITATION, BLURRED VISION

INHALATION..... DIZZINESS, NAUSEA, HEADACHE, FATIGUE

INGESTION..... IRRITATION, NAUSEA, VOMITING

CHRONIC EFFECTS OF OVEREXPOSURE. DIZZINESS, FATIGUE, NAUSEA, POSSIBLE VOMITING, POSSIBLE SKIN IRRITATION. PROLONGED EXPOSURE MAY AGGRAVATE PRE-EXISTING LUNG AND SKIN DISORDERS.

TOXICOLOGICAL TEST DATA.....

SECTION 6EMERGENCY AND FIRST AID PROCEDURES

SKIN..... WASH WITH SOAP AND WATER

EYES..... FLUSH WITH LARGE AMOUNTS OF WATER
CONSULT A PHYSICIAN

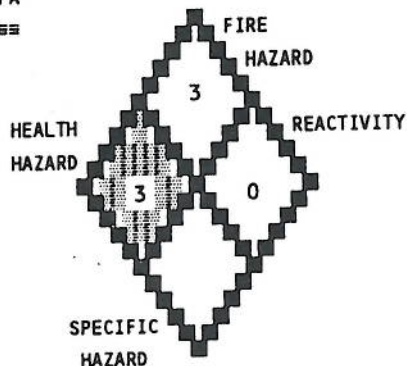
INGESTION..... DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION.

INHALATION..... REMOVE TO FRESH AIR.

SECTION 7HMIS RATING SYSTEM

NFPA

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HMIS RATING

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HEALTH HAZARD.....:3

FIRE HAZARD.....:3

REACTIVITY.....:0

PERSONAL PROTECTION...: X (SECT. 9)

SECTION 8REACTIVITY DATA

PRODUCT STABILITY..... STABLE
Conditions to Avoid..... HIGH HEAT, FLAME, SPARKS
CHEMICAL INCOMPATIBILITY..... STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS THERMAL DECOMPOSITION MAY LIBERATE
CARBON MONOXIDE AND CARBON DIOXIDE
HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR
Conditions to Avoid..... NONE KNOWN
CORROSIVE TO METAL..... NO
OXIDIZER..... NO

SECTION 9SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION..... WEAR N.I.O.S.H. APPROVED RESPIRATOR IF
POINT-OF-USE GENERATES VAPORS ABOVE
RECOMMENDED LIMITS
VENTILATION..... LOCAL EXHAUST REQUIRED
PROTECTIVE CLOTHING..... LONG SLEEVED SHIRT, TROUSERS, SAFETY
SHOES. SOLVENT RESISTANT GLOVES
EYE PROTECTION..... CHEMICAL SPLASH GOGGLES
OTHER PRECAUTIONS..... WASH HANDS WITH SOAP AND WATER BEFORE
HANDLING FOOD. FLAMMABLE-STORE IN COOL, DRY
AREA AWAY FROM HEAT SOURCES. KEEP CONTAIN-
ERS TIGHTLY CLOSED WHEN NOT IN USE. EMPTY
CONTAINERS MAY CONTAIN RESIDUAL VAPORS

SECTION 10ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA.....
SPILL OR LEAK PROCEDURES..... ELIMINATE ALL SOURCES OF IGNITION. SOAK UP
WITH ABSORBENT MATERIAL; i.e., VERMICULITE
SAND. PLACE IN D.O.T. APPROVED CONTAINER
FOR DISPOSAL.
HAZARDOUS SUBSTANCE SUPERFUND...
WASTE DISPOSAL METHOD..... MATERIAL IS HAZARDOUS WASTE. DISPOSE OF IN
ACCORDANCE WITH FEDERAL, STATE, AND LOCAL
REGULATIONS.
HAZARDOUS WASTE 40CFR261.....
CONTAINER DISPOSAL..... DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE
AND FEDERAL REGULATIONS

SECTION 11SHIPPING DATA

D.O.T. PROPER SHIPPING NAME.....
HAZARDOUS SUBSTANCE 49CFR CERCLA
D.O.T. HAZARD CLASS.....
D.O.T. LABELS REQUIRED.....
D.O.T. PLACARDS REQUIRED.....
POISON CONSTITUENT.....

SECTION 11SHIPPING DATA

CONT'D

BILL OF LADING DESCRIPTION.....

CC NO.....

JN/NA CODE.....

SECTION 12SUPPLIER INFORMATION

While THE TOLBER DIVISION believes the statements set forth herein are accurate as of the date hereof, THE TOLBER DIVISION makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation, and verification.